



NORTHWEST POWER NORTHWEST VALUES

Job Title & Series:

Electrical Engineer, GS-850

Job Announcement Number:

9695-12

Grade & Salary Range:

GS-12: \$72,540 - \$94,300

GS-13: \$86,260 - \$112,136

Opens: 01/05/2012

Closes: 01/19/2012

(Applications must be received by 11:59 p.m. Pacific Time)

Full performance level: GS-13. May be filled at any level above.

Anticipated number of positions to be filled: More than one position may be filled

Location: Vancouver, WA

Type of Position: This is a Permanent position with a full-time work schedule.

Organization:

Transmission Services, Engineering and Technical Services, System Control Engineering, SPC Technical Services (TECS)

Benefits: BPA offers a comprehensive benefits package. <http://www.jobs.bpa.gov/Benefits/>

Eligibility

Applications will be accepted from current and former competitive service Federal employees, and those eligible under special hiring authorities. Veterans who are preference eligible or who have been separated from the armed forces under honorable conditions after 3 years or more of continuous active service may apply.

About BPA

The Bonneville Power Administration has been powering people and careers for nearly 75 years. We are a non-profit federal agency that provides clean, emissions-free electricity to the Pacific Northwest and maintains a high voltage transmission system to deliver that electricity. We are a leader in sustainability and environmental stewardship, promoting energy efficiency, renewable energy, the smart grid, fish and wildlife protection and initiatives to address climate change. We are a visionary and innovative agency that values diversity and creativity and encourages continuous learning. We are located throughout the Pacific Northwest with opportunities in cities, smaller communities and rural areas. You can learn more about BPA at www.bpa.gov.

Job Summary & Major Duties

Join us in an exciting opportunity to create strategic and innovative solutions that facilitate the achievement of critical business objectives and improved organizational effectiveness. In the role as an electrical engineer for System Protection and Control, System Control Engineering, you will provide technical leadership for Transient Analysis and authoritative technical consultation, studies, and direction within Engineering and Technical Services as well as to the Transmission organizations.

You will provide comprehensive engineering, training, design, field support, testing, evaluation, expertise in modeling power systems and components, performing analytical studies with these models, and recommending techniques for improving power system performance and reliability based on these studies.

You duties will include:

- Performing modeling/analysis studies on issues involving transient phenomena, transient and dynamic performance of the transmission system and associated high-voltage equipment and serves as a consultant to engineers and other technical personnel throughout BPA, providing advice on a wide range of extremely complex transient analysis issues.
- Performing engineering studies to analyze and evaluate transient and dynamic performance of the transmission system; determine equipment specifications, interconnection practices, and mitigation measures necessary to ensure appropriate transient and dynamic performance of the transmission system; and lead actions to ensure that transient and dynamic performance issues are analyzed, understood and appropriately addressed.

- Developing and maintaining Electromagnetic Transients Program, ATP Draw, and other study tools necessary to provide power system engineers with methods to model the transient performance of the transmission system and system components.
- Provides short and long range planning for relaying systems. Determines operational requirements for these systems and initiates project proposals to replace obsolete equipment. Maintains familiarity with advanced technology and coordinates maintenance requirements with design organizations and manufacturers. Initiates special tests to evaluate new equipment. Interprets overall BPA policy and standards for BPA metering and control systems, based on maintenance and operating requirements.

Qualifications

SPECIALIZED EXPERIENCE

GS-12: Experience assisting with engineering studies.

GS-13: Experience performing engineering studies, especially modeling/analysis, of power system transients on a transmission system.

In order to be rated as meeting the minimum qualifications, we must be able to determine from your application package (includes resume, cover letter and or other supporting material) that you have a minimum of **one year** of the specialized experience requirement described above. *Applicants who have qualifying experience performed on less than a full-time basis must specify the percentage and length of time spent in performance of such duties.*

NOTE: Minimum Qualifications and Time-in-Grade Requirements must be met within 60 calendar days of the closing date of this announcement. Applicants must have served 52 weeks at the next lower grade level in the Federal service. To be creditable, specialized experience must have been equivalent to the next lower grade of the position to be filled.

EDUCATION

To be rated as qualified for this position, college transcripts are required.

A. Degree: professional engineering. To be acceptable, the curriculum must: (1) be in a school of engineering with at least one curriculum accredited by the Accreditation Board for Engineering and Technology (ABET) as a professional engineering curriculum; or (2) include differential and integral calculus and courses (more advanced than first-year physics and chemistry) in five of the following seven areas of engineering science or physics: (a) statics, dynamics; (b) strength of materials (stress-strain relationships); (c) fluid mechanics, hydraulics; (d) thermodynamics; (e) electrical fields and circuits; (f) nature and properties of materials (relating particle and aggregate structure to properties); and (g) any other comparable area of fundamental engineering science or physics, such as optics, heat transfer, soil mechanics, or electronics.

OR

B. Combination of education and experience – college-level education, training, and/or technical experience that furnished (1) a thorough knowledge of the physical and mathematical sciences underlying professional engineering, and (2) a good understanding; both theoretical and practical, of the engineering sciences and techniques and their applications to one of the branches of engineering. The adequacy of such background must be demonstrated by one of the following:

1. Professional Registration – Current registration as a professional engineer by any State, the District of Columbia, Guam, or Puerto Rico. Absent other means of qualifying under this standard, those applicants who achieved such registration by means other than written test are eligible only for positions that are within or closely related to the specialty field of their registration.

2. Written Test – Evidence of having successfully passed the Fundamentals-In-Engineering (FE) examination, or the written test required for professional registration, which is administered by the Boards of Engineering Examiners in the various States, the District of Columbia, Guam, and Puerto Rico. Applicants who have passed the examination and have completed all the requirements for either (a) a bachelor's degree in engineering technology (BET) from an accredited college or university that included 60 semester hours of courses in the physical, mathematical, and engineering sciences, or (b) a BET from a program accredited by the Accreditation Board for Engineering and Technology (ABET) may be rated eligible for certain engineering positions at the GS-5 level. Eligibility is limited to positions that are within or closely related to the specialty field of the engineering technology program.

3. Specified Academic Courses – Successful completion of at least 60 semester hours of courses in the physical, mathematical, and engineering sciences and in engineering that included the courses specified in the basic requirements. The courses must be fully acceptable toward meeting the requirements of a professional engineering curriculum as described in paragraph A.

4. Related Curriculum – Successful completion of a curriculum leading to a bachelor's degree in engineering technology or in an appropriate professional field, e.g., physics, chemistry, architecture, computer science, mathematics, hydrology, or geology, may be accepted in lieu of a degree in engineering, provided the applicant has had at least 1 year of professional engineering experience acquired under professional engineering supervision and guidance.

Education obtained outside the United States:

If your education has been obtained outside the U.S, you must submit proof with your application that your transcripts have been evaluated by a private organization that specializes in interpretation of foreign educational credentials and have been deemed at least equivalent to that gained in conventional U.S. education institutions.

NOTE: If you are not currently in a GS-800, professional engineering series, you must provide a copy of your college transcripts with your application. Failure to provide will result in a rating of not qualified. (If selected, you will be required to provide originals).

KNOWLEDGE, SKILLS, AND ABILITIES

Your application materials will be reviewed against the knowledge, skills and abilities (KSAs) listed below to determine your qualifications.

Please describe your experience and thoroughly address the statements below within your resume, cover letter, and/or other supporting material you choose to submit. Work product examples will not be reviewed unless specifically requested. **Clearly articulating your work experience to determine the application of this knowledge, these skills or abilities through performance is critical to determining your qualifications for this position.** For more information on how to provide supporting information for KSAs, please visit http://jobs.bpa.gov/How_To_Apply/ksa.cfm.

1. **Knowledge of the theories and principles of electrical engineering and power system transients sufficient to study, model and simulate transmission networks in order to identify and resolve transient issues.** *Including:*
 - *Power system transient analysis*
 - *Power system modeling software familiarity*
 - *Fault studies, power flow studies, or stability studies conducted*
 - *Transient issues identified and resolved*
2. **Experience installing, maintaining, configuring and troubleshooting electric utility protective relays and control systems equipment.**
3. **Ability to present highly technical information in written or verbal form to individuals both inside and outside of the organization on a variety of controversial or complex issues.** *Including:*
 - *Technical information or issues communicated*
 - *Audiences communicated with*
 - *Format of communications*
 - *Controversial communications*

ADDITIONAL REQUIREMENTS

- 1 to 5 nights of overnight travel per month is a requirement of the position.
- Applicants must possess and maintain a current valid State's Driver License as a condition of appointment. If selected, you will be required to provide proof that you meet this requirement.

SECURITY & SUITABILITY

The sensitivity level of this position is designated as 'Low Risk – Nonsensitive', which requires that the selectee pass a National Agency Check with Inquiries (NACI) personnel investigation and receive a favorable suitability determination. For more information please visit: http://jobs.bpa.gov/How_To_Apply/faqs.cfm#18

Application Package Checklist

- ☐ Resume, cover letter, and/or other supporting material you choose to submit that fully describe your education and experience. Application must contain sufficient information to determine eligibility for the position. (Optional Application for Federal Employment (OF-612): <http://www.usajobs.opm.gov/of612.asp>).

Applications must include the following information:

- Job Announcement number, title, and grade
 - Full legal name, mailing address, contact telephone number and email address
 - Country of citizenship (SSN or other ID is not requested at this time)
 - High school attended which includes name of high school and location.
 - Employment history including unpaid positions with job title, grade (if Federal), duties and accomplishments, employer's name and address, supervisor's name and phone number, starting and ending dates (month and year), salary, and hours worked per week. Explain any gaps in employment.
 - Indication if we may contact your current supervisor.
 - List of other job-related training, skills, certificates and licenses, recognition, professional memberships, publications, leadership activities, or other relevant information.
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- ☐ If you are applying as a reinstatement or status candidate from another Federal agency, please include a copy of your most recent Standard Form (SF)-50, Notification of Personnel Action.
 - ☐ College transcripts (photocopies are acceptable) if you are not currently in a GS-800, professional engineering series
 - ☐ VETERANS: To be considered for veteran's preference, a copy of your DD-214 (Member 4) is required. 10-point veterans must also provide a copy of their SF-15 and associated documentation.
 - ☐ All applicants are encouraged to complete and submit BPA Form F3330-11e, Applicant Disability, Race/National Origin and Gender Identification form and Applicant Source Form located at the end of this announcement, or at http://jobs.bpa.gov/How_To_Apply/forms.cfm.

How to Submit Your Application

Applications may be emailed, faxed or mailed. Due to security requirements, we only accept hand-delivered application from individuals who currently have badge access to the building.

- **Email to:** jobs@bpa.gov with the Job Announcement Number in the subject line and on any attachments.
- **Fax to:** 503-230-3149
- **Send via US Mail to:** Bonneville Power Administration, ATTN: Human Capital Management, NHQ-1, PO Box 3621, Portland, OR 97208-3621.

You will be notified via email to confirm receipt of your application package. *Applicants should retain a copy of their application as BPA does not return applications or provide copies.* For more information on the hiring process, please refer to: http://jobs.bpa.gov/How_To_Apply/whathappens.cfm.

Additional Information

Veterans Information: <http://www.usajobs.gov/vi>

Career Transition Assistance Program/Interagency Career Transition Assistance Program

(CTAP/ICTAP): Federal employees seeking CTAP/ICTAP eligibility must submit proof that they meet the requirements of 5 CFR 330.605 (a) for CTAP and 5 CFR 330.704 for ICTAP. This includes a copy of the agency notice, a copy of their most recent Performance Rating and a copy of their most recent SF-50 noting current position, grade level, and duty location. **Please annotate your application to reflect that you are applying as a CTAP or ICTAP eligible.** For additional information please refer to <http://www.opm.gov/ctap/>

EEO Policy Statement: <http://www.usajobs.gov/eeo>

Reasonable Accommodation Policy Statement: <http://www.usajobs.gov/raps>

Legal and Regulatory Guidance: <http://www.usajobs.gov/lrg>

Forms Availability: All application materials may be obtained by calling 503-230-3230, or 1-877-975-4272 or visiting: <http://www.jobs.bpa.gov>.

Applicant Source Form

The Bonneville Power Administration's Human Capital Management office has an ongoing process improvement objective associated with recruitment and outreach strategies. In order for us to assess the effectiveness of our current advertising and Recruitment efforts, please identify how you learned about this job by marking the appropriate box below:

Vacancy Announcement Number	Position Title, Series, Grade
<input type="text"/>	<input type="text"/>

☐ **BPA Website**

☐ **USAJOBS Website**

☐ **Job Board** (CareerBuilder, Craigslist, Employment Dept, etc.)

(please specify): _____

☐ **Industry Website or Event** (National Institute of Government Purchasers, GreenDrinks, etc.)

(please specify): _____

☐ **Social Media Website** (Facebook, LinkedIn, etc.)

(please specify): _____

☐ **Career Fair** (campus events, community event)

(please specify): _____

☐ **BPA employee**

☐ **Other (please specify):** _____

U.S. DEPARTMENT OF ENERGY
BONNEVILLE POWER ADMINISTRATION

Approved by Forms Mgmt.
06/10/2010

APPLICANT DISABILITY, RACE/NATIONAL ORIGIN AND GENDER IDENTIFICATION
(Please read the instructions and Privacy Act Statement before completing this form)

PRIVACY ACT STATEMENT

This data is being collected to plan and evaluate the agency's recruitment of persons with disabilities, minorities and women, and to help ensure that agency personnel practices meet the requirements of Federal law and regulation. The data you supply will be used for statistical analysis only. **SUBMISSION OF THIS INFORMATION IS VOLUNTARY.** Failure to provide this information will have no effect on the processing of your application for Federal employment. Individual personnel selections are not made based on this information.

Authority: Sections 1302, 3301, 3302, 3304 and 7201 of Title 5 of the U.S. Code, Section 2000e of Title 42 of the U.S. Code; and Section 791 of Title 29 of the U.S. Code.

1. Vacancy Announcement Number

2. Position Title, Series, Grade

3. Name (Last, First, Middle Initial)

4. Are you a U.S. Citizen? (Check one)

☐ Yes

☐ No

5. Gender ☐ Male ☐ Female

6. SECTION A. DISABILITY STATUS

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A person is disabled if he or she has a physical or mental impairment, which substantially limits one or more major life activities. Please read the disability descriptions below and then write the two-digit numeric code in the box above which best describes your disability, if any. If you have more than one disability, choose the one which results in the most substantial limitation.

01. I do not wish to identify my handicap status.

05. I do not have a disability

SPEECH/HEARING/VISION IMPAIRMENTS

13. Severe speech malfunction or inability to speak; hearing is normal (Examples: defects of articulation [unclear language sounds]; stuttering; aphasia [impaired language function]; laryngectomy [removal of the "voice box"]).

15. Hard of hearing (Total deafness in one ear or inability to hear ordinary conversation, correctable with a hearing aid).

16. Total deafness in both ears, with understandable speech.

17. Total deafness in both ears, and unable to speak clearly.

22. Ability to read ordinary size print with glasses, but with loss of peripheral (side) vision (Restriction of the visual field to the extent that mobility is affected – "Tunnel vision").

23. Inability to read ordinary size print, not correctable by glasses (can read oversize print or use assisting devices such as glass or projector modifier).

24. Blind in one eye

25. Blind in both eyes (no usable vision, may have some light perception)

MISSING EXTREMITIES

27. One hand

28. One arm

29. One foot

32. One leg

33. Both hands or arms

34. Both feet or legs

35. One hand or arm and one foot or leg

36. One hand or arm and both feet or legs

37. Both hands or arms and one foot or leg

38. Missing both hands or arms and both feet or legs.

NONPARALYTIC ORTHOPEDIC IMPAIRMENTS (Because of chronic pain, stillness, or weakness in bones or joints, there is some loss of ability to move or use a part or parts of the body.)

44. One or both hands

45. One or both feet

46. One or both arms

47. one or both legs

48. Hip or pelvis

49. Back

57. Any combination of two or more parts of the body

PARTIAL PARALYSIS (Because of a brain, nerve, or muscle problem, including palsy and cerebral palsy, there is some loss of ability to move or use a part of the body, including legs, arms, and/or trunk.)

61. One hand

62. One arm, any part

63. One leg, any part

64. Both hands

65. Both legs, any part

66. Both arms, any part

67. One side of the body, including one arm and one leg.

68. Three or more major parts of the body (arms and legs)

**U.S. DEPARTMENT OF ENERGY
BONNEVILLE POWER ADMINISTRATION**

*Approved by Forms Mgmt.
06/10/2010*

APPLICANT DISABILITY, RACE/NATIONAL ORIGIN AND GENDER IDENTIFICATION
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7. COMPLETE PARALYSIS (Because of a brain, nerve, or muscle problem, including palsy and cerebral palsy, there is complete loss of ability to move or use a part of the body, including legs, arms, and/or trunk.)

- | | | | |
|--|-----------------------|---|----------------------|
| 70. One hand | 71. Both hands | 72. One arm | 73. Both arms |
| 74. One leg | 75. Both legs | 76. Lower half of body, including legs | |
| 77. One side of body, including one arm and one leg | | | |
| 78. Three or more major parts of body (arms and legs) | | | |

OTHER IMPAIRMENTS

- 80.** Heart disease with no restriction or limitation of activity (*History of heart problems with complete recovery.*)
- 81.** Heart disease with restriction or limitation of activity
- 82.** Convulsive disorder (*e.g. epilepsy*)
- 83.** Blood disease (*e.g. sickle cell anemia, leukemia, hemophilia*)
- 84.** Diabetes
- 86.** Pulmonary or respiratory disorders (*e.g. tuberculosis, emphysema, asthma*)
- 87.** Kidney dysfunctioning (*e.g. if dialysis [Use of an artificial kidney machine is required]*)
- 88.** Cancer (*a history of cancer with complete recovery*)
- 89.** Cancer (*undergoing surgical and/or medical treatment*)
- 90.** Mental retardation (*Chronic and lifelong condition involving a limited ability to learn, to be educated, and to be trained for useful productive employment as certified by a State Vocational Rehabilitation agency under section 213.3102(t) of Schedule A.*)
- 91.** Mental or emotional illness (*A history of treatment for mental or emotional problems.*)
- 92.** Severe distortion of limbs and/or spine (*e.g. dwarfism, severe distortion of the back*)
- 93.** Disfigurement of face, hands, or feet (*e.g. distortion of features on skin, such as those caused by burns, gunshot injuries, and birth defects [gross facial birthmarks, club feet, etc.]*)
- 94.** Learning disability (*A disorder in one or more of the processes involved in understanding, perceiving, or using language Or concepts [spoken or written]; e.g. dyslexia.*)
- 06.** I have a disability, but it is not listed above: Describe below:

SECTION B. ETHNICITY AND RACE IDENTIFICATION: Specific Instructions: The two questions below are designed to identify your ethnicity and race. **Regardless of your answer to question 1, go to question 2.**

Question 1. Are you Hispanic or Latino? (*A person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race.*)

☐ Yes ☐ No

Question 2. Please select the racial category or categories with which you most closely identify by placing an "X" in the appropriate box(s). Check as many as apply.

RACIAL CATEGORY (Check as many as apply)	DEFINITION OF CATEGORY
<input type="checkbox"/> American Indian or Alaska Native	A person having origins in any of the original peoples of North and South America (<i>including Central America</i>), and who maintains tribal affiliation or community attachment.
<input type="checkbox"/> Asian	A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.
<input type="checkbox"/> Black or African American	A person having origins in any of the black racial groups of Africa
<input type="checkbox"/> Native Hawaiian or Other Pacific Islander	A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.
<input type="checkbox"/> White	A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.